

Remarks

Applicants have received and reviewed an Office Action dated April 17, 2007. By way of response, Applicants have amended claims 1 and 9. No new matter is presented. Claims 1-9 and 21 are pending. Applicants submit that the pending claims are supported by the specification.

For the reasons given below, Applicants submit that the amended and newly presented claims are in condition for allowance and notification to that effect is earnestly solicited.

35 U.S.C. § 112

Claims 1-9 were rejected under 35 U.S.C. § 112, second paragraph. Without acquiescing to the rejection, and solely to further prosecution of the claims, Applicants have amended claim 1 to reflect that all of the components of the interesterified coconut oil are measured in terms of mole percent.

Claim 9 was further rejected under 35 U.S.C. § 112, second paragraph. Without acquiescing to the rejection, and solely to further prosecution of the claims, Applicants have amended claim 9 to recite linoleic acid. Linoleic acid is also referred in literature as omega-6 PUFA, meaning that the first double bond is located at the 6th carbon from methyl end of the fatty acid, or n-6. PUFA is abbreviation for polyunsaturated fatty acid. These terminologies have already been accepted in literature. Thus, n-6 PUFA and linoleic acid are the same substance.

Accordingly, Applicants respectfully submit that the amended claims fully comply 35 U.S.C. § 112, second paragraph and withdrawal of this rejection is respectfully requested.

35 U.S.C. § 103(a)

Claims 1-9 and 21 were rejected under 35 USC 103(a) as obvious over Kaimal et al., “Modification of Vegetable Oils by Lipase Catalyzed Interesterification” (“Kaimal”). Applicants respectfully traverse the rejection.

Kaimal teaches a blend of fatty acids interesterified with triglycerides. In contrast, Applicant’s invention is a specific blend of interesterified fatty acids that is different in several ways from the blend of Kaimal et al. The following table compares the amounts of saturated and unsaturated fatty acids in the presently claimed interesterified composition with that of the mixture taught by Kaimal, further compared to fatty acids present in coconut oil.

Fatty acids	Coconut Oil	Kaimal et al.	Presently Claimed Product
Caprylic (8:0)	2	7.5	0
Capric (10:0)	3	11.7	0
Lauric (12:0)	48	39.7	17
Myristic (14:0)	24	21.1	11
Palmitic (16:0)	9	5.4	9
Stearic (18:0)	3	1.0	2
Oleic (18:1)	9	5.4	15
Linoleic (18:2) (omega 6)	2	8.2	46

The specific composition of the invention has been shown to have beneficial properties. Specifically, when ingested, the compositions of the invention have been shown to decrease serum cholesterol by 10%, reduce liver cholesterol by 36%, reduce serum triglycerides by 17%, and reduce liver triglycerides by 16% (Example 3, page 10 of the application as filed). Applicants have further proven the differences between native, blended and interesterified oils by physical measurements as well as nutritional evaluation in experimental animals. The unique

composition of the claims is responsible for the health benefits observed when the composition is ingested.

Kaimal teaches that the nutritional drawbacks of vegetable oils can be “alleviated” using the methods taught (Abstract, page 2) and that the nutritional value, stability, organoleptic properties, flavor, and palatability of oils can be improved (page 3, numbers 1.-4.). Kaimal does not contemplate deriving health benefits of the disclosed mixtures other than decreased “nutritional drawbacks” and increased “nutritional value.” While the exact meaning of these phrases is indefinite, the term “nutrition” typically means the sum of the processes by which an animal or plant takes in and utilizes food substances. Nutrition does not imply lowering of cholesterol or triglyceride levels.

Applicants have found that the unique composition of the claimed invention provides the surprising and unexpected properties observed. While various foodstuffs have been touted as producing lowered cholesterol levels (particularly serum cholesterol) a structured lipid composition based on coconut oil would not be expected to produce the observed effects of lowering both cholesterol and triglyceride levels in serum and liver. The ratios of fatty acids in the blends taught by Kaimal are in sharp contrast compared to the ratios of the claimed invention; in fact the ratios of fatty acids in Kaimal are much closer to the ratios present in natural coconut oil than to the ratios of fatty acids present in the structured lipid of the invention. Based on these differences, it cannot be said that Kaimal teaches formulations capable of lowering cholesterol and triglyceride levels in serum and liver.

Taking into account the above arguments, it cannot be said that Applicants’ invention represents mere optimization of a composition, as is asserted by the Examiner. The MPEP states at section 716.02:

Any differences between the claimed invention and the prior art may be expected to result in some differences in properties. The issue is whether the properties differ to such an extent that the difference is really unexpected. *In re Merck &*

Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986) (differences in sedative and anticholinergic effects between prior art and claimed antidepressants were not unexpected). In *In re Waymouth*, 499 F.2d 1273, 1276, 182 USPQ 290, 293 (CCPA 1974), the court held that unexpected results for a claimed range as compared with the range disclosed in the prior art had been shown by a demonstration of “a marked improvement, over the results achieved under other ratios, as to be classified as a difference in kind, rather than one of degree.” Compare *In re Wagner*, 371 F.2d 877, 884, 152 USPQ 552, 560 (CCPA 1967) (differences in properties cannot be disregarded on the ground they are differences in degree rather than in kind); *Ex parte Gelles*, 22 USPQ2d 1318, 1319 (Bd. Pat. App. & Inter. 1992) (“we generally consider a discussion of results in terms of ‘differences in degree’ as compared to ‘differences in kind’ . . . to have very little meaning in a relevant legal sense”).

Here, as in *In re Waymouth*, Applicants have shown that the claimed range of the composition results in a marked improvement over the results achieved with the ratios of Kaimal. The difference between Kaimal and the claimed invention is one of kind, not of degree. The results are thus unexpected.

Accordingly, based on the foregoing differences, Applicants respectfully submit that the cited references do not render the claimed invention obvious, and withdrawal of this rejection is respectfully requested.

App. No.: 10/014,842
Art Unit: 1617

Summary

In view of the above amendments and remarks, Applicant respectfully requests a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

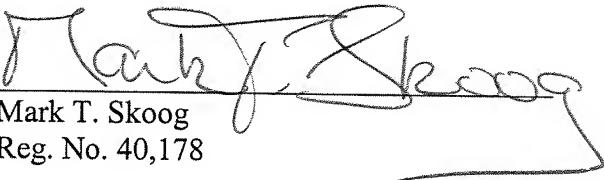
Please charge any additional fees or credit any overpayment to Merchant & Gould P.C., Deposit Account No. 13-2725.

Respectfully submitted,

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